# SUMMER INTERNSHIP PROGRAME

**at**

# Narayana Multispecialty Hospital, Jaipur

From 2nd May 2024 to 1st July 2024

A REPORT BY

Disha Kumari

**Master of Business Administration**

Hospital and Health Management

**2023-25**

under the Mentorship of

**Dr. J.P. Singh**

(Professor, IIHMR, Jaipur)

IIHMR UNIVERSITY

NH Narayana
Multispeciality Hospital
Unit of Narayana Health

**NH-HRD/TNG.LTTR/2024/036** **DATE: 02 July 2024**

## TO WHOM SO EVER IT MAY CONCERN

This is to certify that **Dr Disha Kumari, a** student of **MBA-HHM (2023-25 Batch)** in **Indian Institute of Health Management Research, Jaipur, Rajasthan** has successfully completed her internship training from **02 May 2024 to 01 July 2024** at **Narayana Multispeciality Hospital, Jaipur** in the **Department of Service Excellence and OT.** Her Project title was **"Addressing OT bottlenecks: mitigating delays and cancellations and optimizing online appointments for NH Care App.**

During the internship her performance was good.

We wish her all the success in her future endeavors.

**For Narayana Hrudayalaya Limited;**

**Nikhil Mathur**
Deputy General Manager – HR

IIHMR UNIVERSITY

## IIHMR University Faculty Mentor Approval

This is to certify that **Dr. Disha Kumari** of the academic year 2023-25 of **Institute of Health Management Research** has prepared a poster with respect to her summer internship held during May-July 2024.

She has carried out work as per the guidelines. Her poster is approved for presentation.

Date: 22nd July 2024

Jagjeet Brar Singh

(Signature of Faculty Mentor)

**Dr J.P. Singh**

Professor

**IIHMR University Jaipur**

# MITIGATING OT DELAYS AND CANCELLATIONS

## NARAYANA MULTISPECIALITY HOSPITAL, JAIPUR

CREATED BY: DR. DISHA KUMARI ROLL NO 1704 (MBA HM 28)
UNIVERSITY MENTOR: DR. J.P. SINGH ORGANISATION MENTOR- MR.RAMIT RAJVANSHI

IIHMR UNIVERSITY

## BRIEF HISTORY

Narayana Health, founded by Dr. Devi Shetty in 2000, began with its flagship hospital in Bangalore. It has expanded to over 30 hospitals across India and the Cayman Islands Known for affordable, high-quality healthcare.

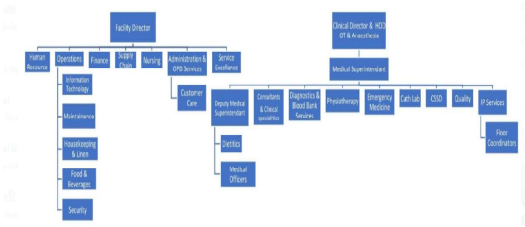
## VISION

To provide high-quality health care with care and compassion, at an affordable cost, on large scale.

## MISSION

A dream of making quality health care available to the masses worldwide.

## ORGANISATION STRUCTURE




## SWOT ANALYSIS

### STRENGTHS

- Certified with NABH and JCI
- Skilled and experienced surgeons, anesthesiologists, and support staff.
- Strong Brand Reputation of Narayna .

### WEAKNESSES

- Including Not Admitted and clearance due patients in List
- Not maintaing records in software regularly.
- Insufficient training for new staff
- need uper hand to control doctors behviours.
- Shortage of housekeeping staff
- Issue with updates in software

### OPPORTUNITIES

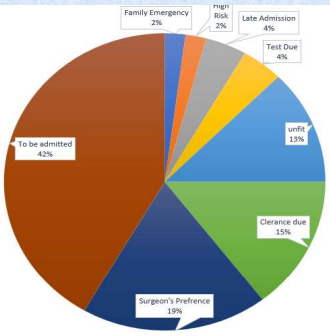
- Include use of **Athma** to create dashbords for regular progress
- Opt for Green OT regulations
- Better traning can enhance hospital effieciency

### THREATS

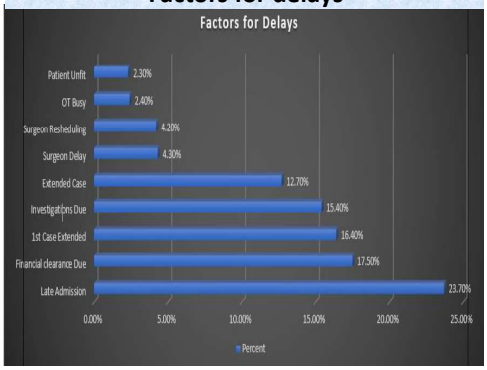
- External competation
- Patient Disatisfication
- Technological issues
- Staff errors in Patient handling

## DATA ANALYSIS

### OT Cancelations

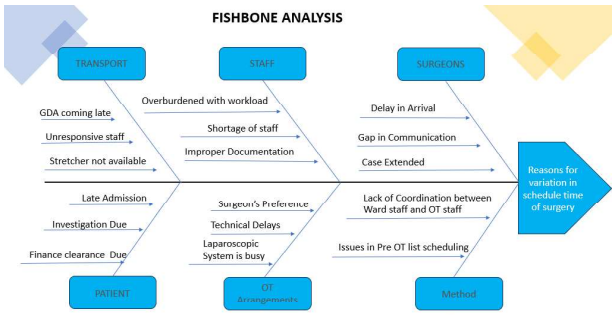



### Factors for delays




Family Emergency | High Risk | Late Admission | Test Due | unfit | Clerance due | Surgeon's Prefrence | To be admitted

### FISHBONE ANALYSIS




## LEARNINGS

- Gained deep insights into patient behavior.
- Learned how to operate in critical departments.
- Understood issues at a micro level.
- Acquired knowledge of interdepartmental collaboration

## USEFULNESS

- **Experienced critical hospital department** operations and promoted NH Care app digital awareness.
- **Analyzed OT delays** to identify underlying patterns and root causes, facilitating evidence-based strategies for reduction
- **Communication Skill**: Effectively coordinate with departments, staff, and patients.
- **Technological Learning** : Familiarity with healthcare IT systems like the NH Care app.
- **Problem-Solving**: Develop innovative solutions for OT delays and online appointment systems.

## SUGGESTIONS

- Enhance Communication: Educate patients to reduce late admissions.
- Streamline Lists: Exclude pending finance and unconfirmed admissions.
- 'Golden Patient' Technique: Optimize and prepare the first patient for the next day's OT.
- Dietary Instructions: Ensure clear communication and adherence to pre-surgery diets.
- Collaborative Coding: IT, Admissions, and OT staff to ensure accurate surgery codes.
- Specialty Prep: Extra caution and prep for orthopedic surgeries.
- Staff Training: Regularly train ward staff on transfer checklists and documentation.

## DIFFERENCE BETWEEN PRACTICAL EXPOSURE AND THEORETICAL UNDERSTANDING

| ASPECT | THEORETICAL UNDERSTANDING | PRACTICAL EXPOSURE |
|---|---|---|
| Conceptual Knowledge | Understanding scheduling, resource allocation, and workflow optimization | Observing and identifying specific causes of delays in the operation theatre |
| Literature and Case Studies | Learning from textbooks, research papers, and case studies about causes and solutions | Participating in day-to-day activities, assisting in preparations |
| Standard Protocols | Knowledge of SOPs, guidelines, and best practices for minimizing delays | Experiencing quick decision-making to manage delays and ensure smooth operations with limited resources |
| Interdepartmental Coordination | Learning the theory behind interdepartmental coordination to ensure seamless operation | Working with various departments (e.g., anesthesiology, nursing, surgery) for timely interventions |

## Conclusion

- **Operation theatre delays**, stemming from late admissions and administrative and financial inefficiencies were identified as significant challenges.
- **Strategic recommendations**, including standardized checklists and improved communication, aim to mitigate these issues and enhance hospital efficiency.
- **Implementation of these strategies** is critical for optimizing resource utilization and improving patient care outcomes.
- **Future research** should focus on refining these approaches and leveraging technology to sustainably reduce operation theatre delays.

## OBJECTIVE

- Identify the primary causes of delays and cancellations in surgical procedures
- Identify the standard nonproductive time

## METHODOLOGY

**STUDY AREA: OT Complex**
**TYPE OF STUDY**: Observational
**SAMPLE SIZE**: 520 Patients
**DURATION**: 1 Month


# WEEKLY REPORT

**Name of the Organization:** Narayana Multispecialty Hospital

**Department of Summer Internship Program:** Service Excellence

**Name of the Student:** Dr. Disha Kumari

**Roll no:** 1704 **Stream:** MBA – HM

**Week no: 1st** **From :1st May to 5th May**

| | |
|---|---|
| **Activity Done** | Understanding the Basic working of Departments:<br>• Outpatient Department (North, South and New OPD)<br>• Observation at **Enquiry Desk** (Help patients to download the **"NH care"** app for registration.<br>• Understand the procedure of **RGHS, CGHS, Railway and ECHS** billing.<br>• Understand **the Admission Department's** work.<br>• Observe the patient in **the "Sampling room."**<br>• Observation at **"Emergency OPD"** |
| **Linking theory (Classroom learning) with practice at your organization** | • Que Management in OPD<br>• General insurance in working<br>• Root cause analysis<br>• Plan, Do, Check, Act approach<br>• Reduce waste and increase cost-effectiveness. |
| **Gaps identified on the working area.** | • Patients **face difficulty in downloading apps** by themselves and face problems with internet connection.<br>• Some things that should be covered in RGHS, CGHS, etc. are **not covered at Narayana. Ex** – Free OPD charges, IPD medication etc.<br>• **Doctors are not available** at appointed time sometimes due to shifts in Operation Theatre.<br>• Sometimes faced difficulty in **server down at RGHS** and other sites, which led to an increase in waiting time.<br>• **Toilets** should be more hygienic.<br>• **Emergency OPD** sometimes face difficulty in crowd management (relatives)<br>Also face problems in the generation of X-ray, CT, MRI, and Mammography reports than expected time because of the availability of only 1 **MRI and 1CT.**<br>• Some of the most common cases are **not seen** at Narayana |

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| | like **Burns, IPD of Ophthalmology, Dental, Psychiatry (IPD) and Geriatric Medication etc.**<br>• **IPD Pharmacy: Error** in Medicine management. |
| **Suggestions for improvement** | • There should be free Wi-Fi availability for patients.<br>• Hospitals should abide by the rules of government regarding. RGHS, CGHS, ECHS and Railway.<br>• Registration forms should be Multilingual.<br>• Additional Doctors should be there to attend patient if concern Doctor is busy.<br>• Effective communication to update patients if the doctor is busy.<br>• Increase the number of diagnostic devices.<br>• Introduce new services such as burns, ophthalmology IPD, dental, psychiatry IPD, and geriatric medication. Hygiene should be maintained by effective sanitation protocols. |
| **Plan for the week** | Explore the Other Departments like the Lab, Blood Bank, Preventive Health Desk, TPA Department, Non-Invasive Cardiac Care, and Cath Lab, Explore the IPD of different Departments. |

## Signature of the Student

**Disha Kumari**

# WEEKLY REPORT

**Name of the Organization:** Narayana Multispecialty Hospital

**Department of Summer Internship Program:** Service Excellence

**Name of the Student:** Dr. Disha Kumari

**Roll no:**1704 **Stream:** MBA – HM

**Week no: 2nd** **From :6th May to 12th May**

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| **Activity Done** | Duty at **Preventive Health Desk, Cheeranjivi** Desk<br>• Explore the packages of all Domains for health checkups.<br>• Council the patients about the possible diseases<br>• Collaboration between different departments like food and Beverages, Diagnostics, Nutrition services and physiotherapy<br>• Offer the patient wheelchairs and stretchers if physically handicapped.<br>• Understand the workings of the Cheeranjivi Desk about the basic formality of patient documentation Government Portal.<br>• Understand about Auditing of the documents required by the government for the verification. |
| **Linking theory (Classroom learning) with practice at your organization** | • . Understanding patient Psychology and fear during the testing<br>• Apply Preventive Education to patients for better health outcomes.<br>• Study the interrelation between various sectors of hospitals for effective teamwork. |
| **Gaps identified on the working area.** | • Patients need to wait for the verification of the claim by the government.<br>• No housekeeping is allotted to the Cheeranjivi area.<br>• Waiting time is more when one patient is shifted to another due to a lack of required staff.<br>• Shortage of printer for 4 staff<br>• Lack of space for the staff working there<br>• Sometimes the PHC department faces delays with breakfast and queues during the test. |
| **Suggestions for improvement** | • The preventive health desk should have more staff to handle patients.<br>• More interactive sessions should be there to adopt the preventive approach.<br>• Should prevent the re-entering of data again about 10 times in the gov. portal. |

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| | • Provide housekeeping to patient care.<br>• Systematic designing of Cheeranjivi desk and providing space along with required accessories to do patient formalities quickly. |
| **Plan for the next week** | Non-Invasive Care, Radiology, RGHS |

**Signature of the Student**

**Disha Kumari**

# WEEKLY REPORT

**Name of the Organization:** Narayana Multispecialty Hospital

**Department of Summer Internship Program:** Service Excellence

**Name of the Student:**Dr. Disha Kumari

**Roll no:**1704 **Stream:** MBA – HM

**Week no: 3rd** **From :13th May to 18th May**

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| **Activity Done** | • Inspect the laboratory and its challenges.<br>• Radiology OPD<br>• Understand the complaint handling by **Salesforce software.**<br>• Prepare Excel on reasons for the project "Why **Revisit Patients Not Using Online Registration System."**<br>• **Design for the pamphlet** and a script to educate patients about Online registration.<br>• **Prepare Google forms** for OPD staff to know patients' opinions with the **NH care app.** |
| **Linking theory (Classroom learning) with practice at your organization** | • Marketing plays an essential role in promoting digital literacy.<br>• Digital Health plays a vital role in Data collection and easy access to anytime and anywhere. |
| **Gaps identified on the working area.** | • Lab faces **the issues of Repetition of tests** of patients due to faults in machines, load of patients.<br>• Also faces **delays in confirmation** with doctors for Abnormal tests due to the busy schedule of doctors.<br>• **Salesforce app** not showing **Net Promoter Score** due to its new instalments. |
| **Suggestions for improvement** | • Lab machines need to be checked.<br>• Must be staff doctors for analyses of lab reports.<br>• Salesforce software needs to be updated soon |
| **Plan for the next week** | **Start** the **Project** "**Delays in Operation Theatre**" |

## Signature of the Student

**Disha Kumari**

**WEEKLY REPORT**

**Name of the Organization:** Narayana Multispecialty Hospital

**Department of Summer Internship Program:** Service Excellence

**Name of the Student:** Dr. Disha Kumari

**Roll no:** 1704 **Stream:** MBA – HM

**Week no: 4th** **From :20th May to 25th May**

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| **Activity Done** | • Observation in Operation theatre regarding delays and point out the reasons.<br>• Track timings and compare the daily roster timings from the real in timings of patients for 5 days. |
| **Linking theory (Classroom learning) with practice at your organization** | • As a critical area it's important to manage the OT and communication with superiors should help to analyze the problem. |
| **Gaps identified on the working area.** | • Lack of coordination among the doctors sometimes.<br>• Rescheduling of surgeries on the wish of the surgeon<br>• Sometimes patients are also admitted late.<br>• OT Unavailability is also an issue.<br>• Lack of coordination between different departments |
| **Suggestions for improvement** | • Need for the upper hand to control the doctor's behaviors and issues.<br>• A proper checklist should be considered before scheduling the surgery to prevent the delay to patients. |
| **Plan for the nextweek** | **Continue the data collection about OT delays** |

**Signature of the Student**

**Disha Kumari**

**WEEKLY REPORT**

**Name of the organization:** Narayana Multispecialty Hospital

**Department of Summer Internship Program:** Service Excellence

**Name of the Student:** Dr. Disha Kumari

**Roll no:** 1704 **Stream:** MBA – HM

**Week no: 5th** **From :26th May to 1 June**

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| **Activity Done** | • Observation in Operation theatre regarding delays and point out the reasons.<br>• Detail Observation and prepare the report framework.<br>• Prepare the Pre OT-List for surgery for the nextday.<br>• Do the File Auditing by checking important papers and checklist should be completed when handover the patient from the ward. |
| **Linking theory (Classroom learning) with practice at your organization** | • Root Cause Analysis helps to find connection between actual causes.<br>• DMAIC will be followed |
| **Gaps identified on the working area.** | • Lack of coordination among the doctors and OT staff.<br>• Sometimes exceed the time of surgery due to busy Laparoscopic System in other OT.<br>• Patients do not follow the guidelines for Nil by Mouth (Fasting for 6 hours before surgery) this shows lack of coordination of ward staff and doctor.<br>• Transfer the patients but they had to wait in OT area.<br>• Financial Clearance is an issue |
| **Suggestions for improvement** | • Need of the upper hand to control the doctor's behaviors and issues.<br>• A proper checklist should be considered before scheduling the surgery to prevent the delay to patients.<br>• Should ask the surgeon about the system need before surgery.<br>• |
| **Plan for the next week** | **Approve the Report by Organization Mentor and Work on Other Project** |

**Signature of the Student**

**Disha Kumari**

# WEEKLY REPORT

**Name of the Organization:** Narayana Multispecialty Hospital

**Department of Summer Internship Program:** Service Excellence

**Name of the Student:** Dr. Disha Kumari

**Roll no:**1704 **Stream:** MBA – HM

Week no: 6th From :3rd June to 9th June

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| **Activity Done** | • Do Documentation Audits in Detail<br>• Rectify the Transfer Checklist in OT<br>• Make Checklists for Ward and OT staff for better Clarification and making less mistakes.<br>• Approved the Audio script to announce the use of NH Care app. |
| **Linking theory (Classroom learning) with practice at your organization** | • Root Cause Analysis helps to find connection between actual causes.<br>• DMAIC will be followed |
| **Gaps identified on the working area.** | • Lack of coordination among the doctors and OT staff.<br>• Ward staff is unaware about some entries in Transfer checklist.<br>• Also, they fill this incorrectly (often by night staff)<br>• Consent is incomplete by DOCTORS and PATIENT'S sign |
| **Suggestions for improvement** | • Need for the upper hand to control the doctor's behaviors and issues.<br>• A proper checklist should be considered before scheduling the surgery to prevent the delay to patients.<br>• Need more rigorous training to avoid the 80% of Transfer Checklist Mistakes. |
| **Plan for the next week** | **Approve the Report by Organization Mentor.** |

**Signature of the Student**

**Disha Kumari**

**WEEKLY REPORT**

**Name of the Organization:** Narayana Multispecialty Hospital

**Department of Summer Internship Program:** Service Excellence

**Name of the Student:** Dr. Disha Kumari

**Roll no:**1704 **Stream:** MBA – HM **Week no**: 7

From :10th June to 15th June

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| **Activity Done** | • Do Documentation Audits of Operation Theatre in Detail<br>• Prepare the Posters for awareness on "**World Environmental Day"** in the skill Lab.<br>• Explain to the Patients the significance of this poster that we need to plant more trees, accept paperless reports, use less plastic, and adopt cloth and jute bags.<br>• Coordinate with the call **center"** department to play the approved Audio Track of **"The NH CARE" app,** on an hourly basis from 10 AM to 4:30 PM.<br>• Distribute the NH CARE Phamplates at Soft points **like sample rooms, Pharmacy and Laboratory** to regularly remind the patient about the significance of this application.<br>• Regularly make patients aware that the waiting time can be decreased by pre-booking because they can see the slots when exactly the Doctor is seeing OPD patients. |
| **Linking theory (Classroom learning) with practice at your organization** | • Marketing is essential for promoting a specific app or any scheme to the patients and needs to be communicated in a clear way and must highlight the advantages to the patient at regular intervals.<br>• Interdepartmental coordination needs to be essential for implementing any new change. |
| **Gaps identified on the working area.** | • Problem of Code occurs during financial clearance due to wrong codes generated by the admission department.<br>• Patients are still unaware of saving the environment by opting for digital reports, receipts, and prescriptions.<br>• Regular training sessions need to be taken, for the **Documentation** |

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| | **process** of Operation Theatre. |
| **Suggestions for improvement** | • Code problems need to be resolved by coordination of the IT department along with the admission department and Finance department to generate correct and clear codes for the procedure that needs to be performed by surgeons to prevent any confusion.<br>• Regular awareness must be generated by digital mode or IEC materials to opt for being paperless to patients.<br>• Can also Outsource the department to install and give instructions about this app and make sure to teach patients about reports, bills, and prescriptions along with booking online which is the most important feature because it will target out REVIST patients which is more compared to NEW patients. |
| **Plan for the next week** | Explore the TPA section and Infection control department |

## Signature of the Student

**Disha Kumari**

**WEEKLY REPORT**

**Name of the Organization:** Narayana Multispecialty Hospital

**Department of Summer Internship Program:** Service Excellence

**Name of the Student:** Dr. Disha Kumari

**Roll no:** 1704 **Stream:** MBA – HM **Week no**: 8th

From :17th June to 22nd June

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| **Activity Done** | • **Learn** more about the **basic workings of the TPA department.**<br>• **Ta**ke weekly audit of the Infection control department For **Single Used Device (SUD)Compliance**<br>• Understand the general **workflow of CSSD.**<br>• Take a weekly audit of the **Linen Checklist** of MICU, private ward, Special Ward, OT 2nd Floor.<br>• Also did an audit of 2 **Intensive Control Units (ICU)** and identified the issues.<br>• Taken daily audit of **PICU** (pediatric intensive care unit) and **NICU** (Neonatal intensive care unit)<br>• **Data analysis** of the effect of the checklist on Operation Theatre. |
| **Linking theory (Classroom learning) with practice at your organization** | • **TPA Department:** Apply theoretical knowledge of healthcare administration to real-world insurance processing and patient coordination.<br>• **Infection Control Audit:** Utilize infection prevention principles to conduct practical audits ensuring SUD compliance.<br>• **CSSD Workflow:** Implement theoretical sterilization methods in observing and improving CSSD operations.<br>• **Linen Checklist Audit:** Apply standards of hygiene and sanitation in performing practical audits of linen management.<br>• **ICU Audit:** Use ICU protocols and quality improvement concepts to identify and resolve practical issues in intensive care units.<br>• **Checklist Impact Analysis:** Leverage data analysis techniques to evaluate and enhance the effectiveness of operational checklists in the OT |

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| **Gaps identified on the working area.** | • **TPA**: sometimes admitting patients without approval can lead to finance clearance delays.<br>• **SUD COMPLIANCE**: Sometimes Doctors or staff throw the SUD without entry, and this is counted as missing in CSSD.<br>• **Linen Department**: Facing various issues like staff shortages, missing clothes green Lenin etc.<br>• **PICU and General Ward**: Observe that they are not using Oral hygiene i.e., Mouth wash for the patients. |
| **Suggestions for improvement** | • **TPA Department**: To avoid delays in financing clearance, make electronic pre-admission clearances mandatory.<br>• **SUD Compliance**: To ensure precise compliance, use stringent SUD logging procedures and an electronic tracking system.<br>• **Linen Department**: Reduce worker shortages by redistributing and providing training and maximize linen inventory through computerized tracking.<br>• Enforce a uniform mouthwash and oral hygiene procedure in the **PICU and General Ward,** along with frequent staff training and supervision. |
| **Plan for the next week** | Work on report and give presentation and do audits and analysis. |

**Signature of the Student**

**Disha Kumari**

# COMPILED REPORT

**Name of the Organization:** Narayana Multispecialty Hospital

**Department of Summer Internship Program:** Service Excellence

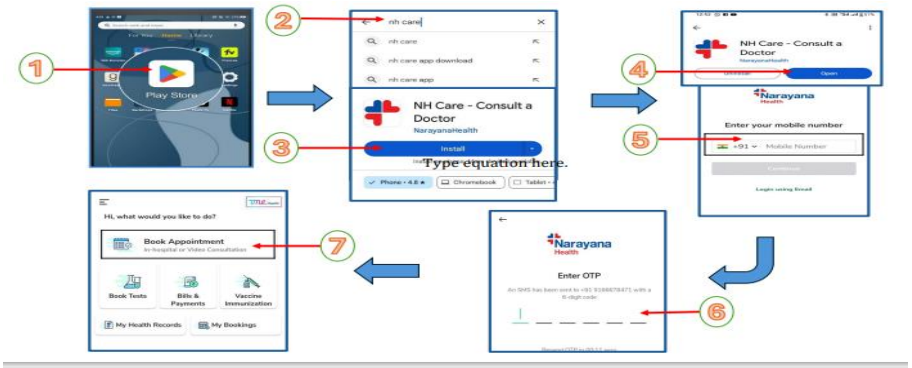
**Name of the Student:** Dr. Disha Kumari

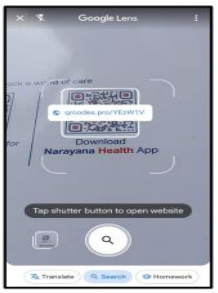
**Roll no:** 1704 **Stream:** MBA – HM

| **Activity Done** | **Learned about the general working of departments:**<br><br>• Observation at **Enquiry Desk** to understand the patient flow and process of billing ND offline registrations and Online registration by NH care app.<br><br>• Understand the workings of NH Care app for new, revisit and follow-up patients.<br>• Learned about Government Billing: RGHS, CGHS, RAILWAY and ECHS.<br>• Observe the workflow at Sampling Room<br><br>**PREVENTIVE HEALTH CHECK DESK:**<br><br>• Promote Health Checkup Packages: Provide all-inclusive packages for a variety of medical specialities.<br>• Patient counselling: To help patients understand their health state, provide thorough counselling about prospective disorders.<br>• Make sure that departments such as Food and Beverages, Diagnostics, Nutrition Services, and Physiotherapy work together seamlessly.<br>• Support for Accessibility: To improve patients' comfort and mobility while they are in the hospital, provide wheelchairs and stretchers to those who are physically disabled.<br><br>**CHEERANJIVI:**<br><br>• Understand the workings of the Cheeranjivi Desk about the basic formality of patient documentation Government Portal.<br>• Understand about Auditing of the documents required by the government for the verification.<br>• Identify the issues with Document query: Unclear Photos, non-updated reports and waiting for approval.<br>• Inspect the **laboratory and Radiology OPD** to inspect their challenges.<br>• Learned complaint handling by **Salesforce software** for service |
|---|---|

excellence department.

- Prepare Excel report on reasons for the project "**Why Revisit Patients Not Using Online Registration System."**
- **Target New Patients:** Design *information education materials (IEC)* consisting of steps for downloading the appwhich will ease the working of staff and patients and place them at on front desk**.**
- **Removal of forms:** Transition from manual forms to digital reports to promote the learning of patients for NH care app.
- **Patient Mapping done** for many patients specifically for OPD.
- **Target the Soft Touch points:** *Distribute the pamphlets* to points where patient contact is maximum**.**
- **Add the sticker to Front side of File: For** constant *reminder for using app.*
- 
- **Design "Information Education Material"** for easy understanding of patients, and how to download the NH care app.





- **Prepare Google forms** for OPD staff to know patients' opinions with the **NH care app through questions:**

**Primary data**

- Survey through Questioners:

**Q1: Age Group**

- This question categorized respondents into different age brackets to understand any age-related trends in NH Care app adoption.

**Q2: Digital Education Level**

- Respondents were categorized as Digital Novice, Digital

Competent, or Digital Expert to assess their digital literacy. This helped analyses how digital skills influenced their preference for online or offline booking.

**Q3: Visit Type**

- This question identified if the patient's visit was their First Visit, Revisit, or Follow-Up. Understanding the visit type helped analyse its correlation with the method of appointment booking.

**Q4: Health Scheme Group**

- Patients were asked if they were enrolled in Government Schemes, Corporate plans, or None (N/A) for medical bill discounts. This analysis helped determine if scheme beneficiaries had different booking preferences.

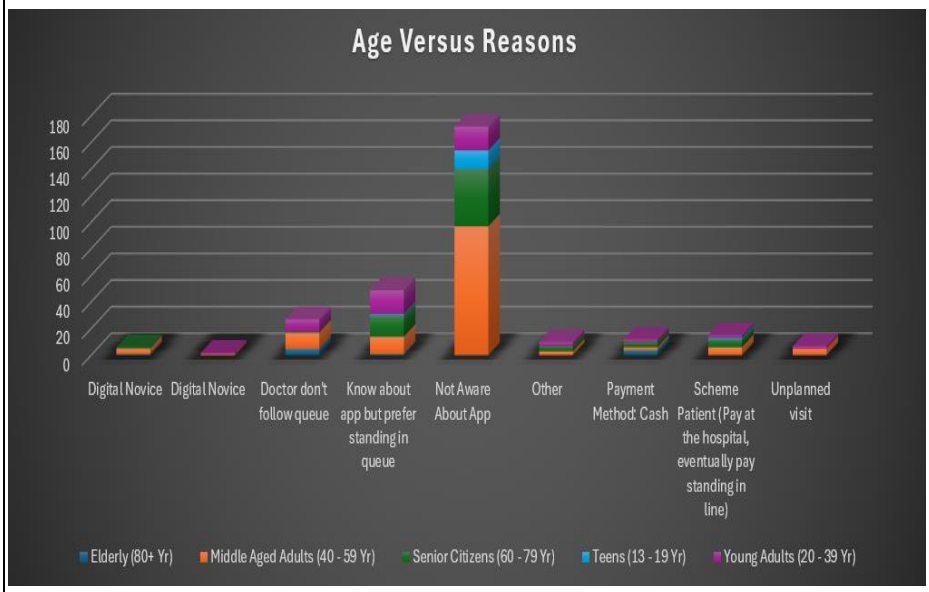
**Q5: OPD Area**

- This question recorded the specific OPD department where patients were seen, aiding in identifying adoption rates of the NH Care app across different departments.

**Q6: Reasons for Avoiding NH Care App Booking**

- An open-ended question allowing patients to share reasons for not using the NH Care app. This qualitative data provided insights into barriers and challenges, guiding targeted interventions.

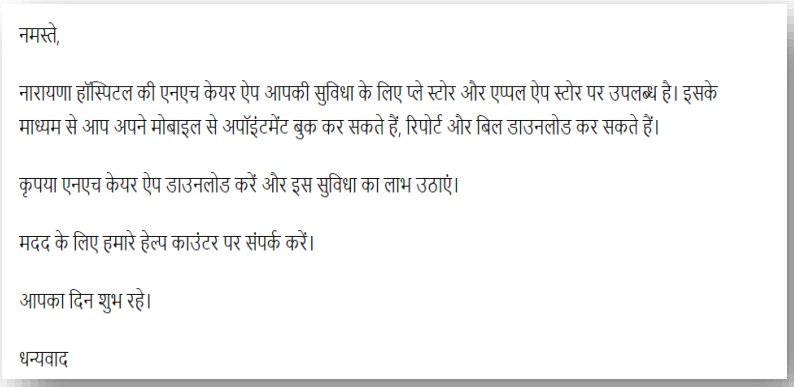
- **Analyze the survey:** Find the gap that the main reason for patient is unaware of the app



**INTERPRETATION :**

The graph "**Age Versus Reasons**" shows that the main reason for not using the app is a lack of awareness, especially among Senior Citizens and Middle-Aged Adults, affecting around 160 individuals. The next common reason is prefers to stand in the queue, mostly among Middle-Aged Adults. Other reasons, like payment methods and unplanned visits, impact fewer than 20 individuals each. This highlights the need to improve app awareness for middle-aged and senior citizens.

- **Influence Patient Perception:** *Design script and Audio announcements* by collaborating with *Communication and Announcement Center* (EPABX).



नमस्ते,

नारायणा हॉस्पिटल की एनएच केयर ऐप आपकी सुविधा के लिए प्ले स्टोर और एप्पल ऐप स्टोर पर उपलब्ध है। इसके माध्यम से आप अपने मोबाइल से अपॉइंटमेंट बुक कर सकते हैं, रिपोर्ट और बिल डाउनलोड कर सकते हैं।

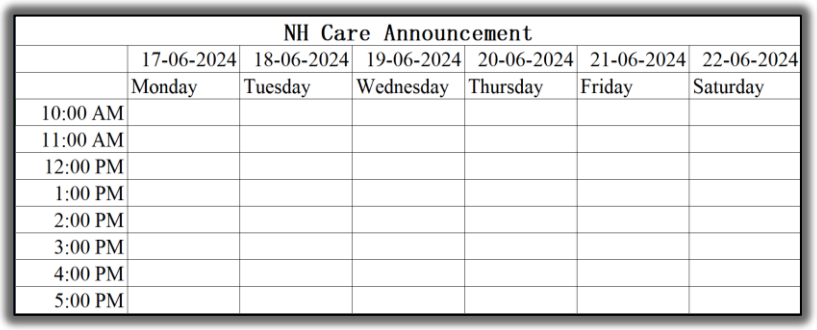
कृपया एनएच केयर ऐप डाउनलोड करें और इस सुविधा का लाभ उठाएं।

मदद के लिए हमारे हेल्प काउंटर पर संपर्क करें।

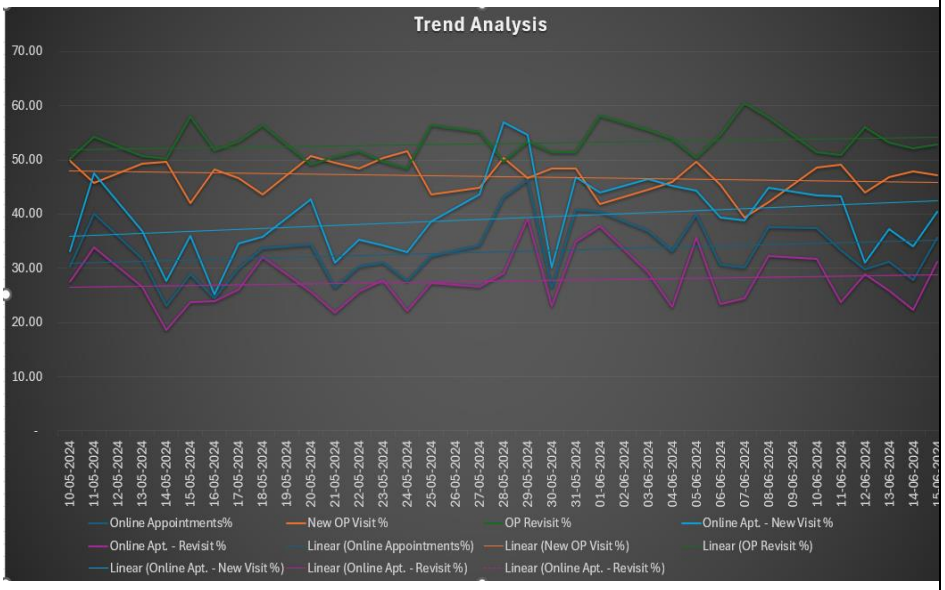
आपका दिन शुभ रहे।

धन्यवाद

- **Audio Announcement Daily Tracker:** We Distributed Daily tracker to maintain the regularity of announcing every hour in a day from 10 AM to 5 PM to department maintain regularity.



| NH Care Announcement | | | | | | |
|---|---|---|---|---|---|---|
| | 17-06-2024 | 18-06-2024 | 19-06-2024 | 20-06-2024 | 21-06-2024 | 22-06-2024 |
| | Monday | Tuesday | Wednesday | Thursday | Friday | Saturday |
| 10:00 AM | | | | | | |
| 11:00 AM | | | | | | |
| 12:00 PM | | | | | | |
| 1:00 PM | | | | | | |
| 2:00 PM | | | | | | |
| 3:00 PM | | | | | | |
| 4:00 PM | | | | | | |
| 5:00 PM | | | | | | |




**INTERPRETATION :**

| **Appointments** % | **Average (pre)%** | **Average (post)%** | % Change |
|---|---|---|---|
| online appointments% | 30.33% | 35.28% | 4.95% |
| New visit online % | 35.13% | 42.48% | 7.35% |
| Revisit % | 25.93% | 29.02% | 3.09% |
| Offline % | 69.6700% | 64.7% | 4.95% |

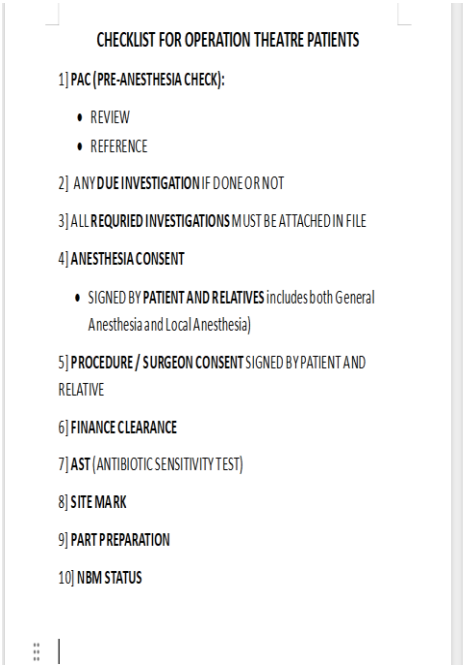
**Results:** *Increase of 5% of Online appointments in period of 15 days*

## PROJECT 2: "MITIGATING OT DELAYS AND CANCELLATIONS"

- Look at overall daily work in Operation theatre and track the delays in each phase.
- Take samples of patients from the register and electronic health records daily, note down the factors for delays, and understand the reasons for delays and cancellations for 1 month.
- Prepare the Pre OT-List and schedule surgery for the next day.
- Do the **File Auditing** by checking in pre holding area and pointing errors.
- Council the staff about the wrong entry in the Transfer checklist especially by Night staff.
- Made a new Checklist along with staff for ward staff and OT staff guidance about patient preparation.
- On average there are 28.04 min of delay in every delayed surgery.

**IMPLEMENTATION**

- By analysing Current Gaps of not ready the patients on time.
- We prepare a Checklist for both Ward and OT Staff to take care of some essential points to Save staff and patient's time.



CHECKLIST FOR OPERATION THEATRE PATIENTS

1] **PAC (PRE-ANESTHESIA CHECK):**

- REVIEW
- REFERENCE

2] ANY **DUE INVESTIGATION** IF DONE OR NOT

3] ALL **REQURIED INVESTIGATIONS** MUST BE ATTACHED IN FILE

4] **ANESTHESIA CONSENT**

- SIGNED BY **PATIENT AND RELATIVES** includes both General Anesthesia and Local Anesthesia)

5] **PROCEDURE / SURGEON CONSENT** SIGNED BY PATIENT AND RELATIVE

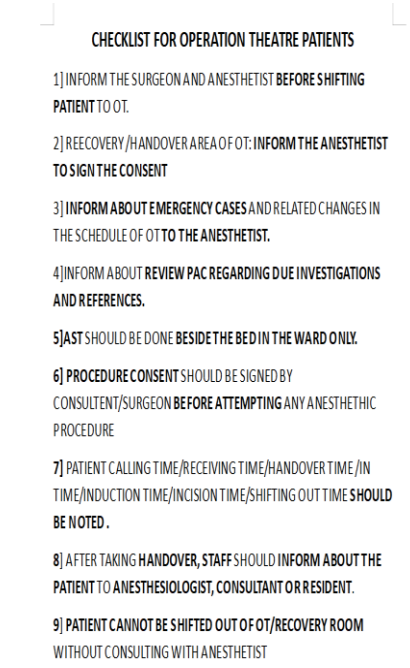
6] **FINANCE CLEARANCE**

7] **AST** (ANTIBIOTIC SENSITIVITY TEST)

8] **SITE MARK**

9] **PART PREPARATION**

10] **NBM STATUS**



CHECKLIST FOR OPERATION THEATRE PATIENTS

1] INFORM THE SURGEON AND ANESTHETIST **BEFORE SHIFTING PATIENT** TO OT.

2] REECOVERY /HANDOVER AREA OF OT: **INFORM THE ANESTHETIST TO SIGN THE CONSENT**

3] **INFORM ABOUT EMERGENCY CASES** AND RELATED CHANGES IN THE SCHEDULE OF OT **TO THE ANESTHETIST.**

4]INFORM ABOUT **REVIEW PAC REGARDING DUE INVESTIGATIONS AND REFERENCES.**

**5]AST** SHOULD BE DONE **BESIDE THE BED IN THE WARD ONLY.**

**6] PROCEDURE CONSENT** SHOULD BE SIGNED BY CONSULTENT/SURGEON **BEFORE ATTEMPTING** ANY ANESTHETHIC PROCEDURE

**7]** PATIENT CALLING TIME/RECEIVING TIME/HANDOVER TIME /IN TIME/INDUCTION TIME/INCISION TIME/SHIFTING OUT TIME **SHOULD BE NOTED .**

**8]** AFTER TAKING **HANDOVER, STAFF** SHOULD **INFORM ABOUT THE PATIENT** TO **ANESTHESIOLOGIST, CONSULTANT OR RESIDENT.**

**9] PATIENT CANNOT BE SHIFTED OUT OF OT/RECOVERY ROOM** WITHOUT CONSULTING WITH ANESTHETIST

**CHECKLIST**

**COMPONENTS OF CHECKLIST:**

•**Pre-Anaesthesia Check (PAC) Review and Reference** :Completed by concerned Anaesthesiologist

•**Investigations** :Ensure all required investigations are attached

•**Consent:**

- Anaesthesia consent obtained from both parents (for minors) and patient
- Procedure consent obtained from patient (and parents if applicable)

•**Antibiotic Test** :Ideally performed in the ward

•**Site Marking** :Confirmed and marked before surgery

•**Part Preparation** :Hair removal as necessary

•**Fasting Status** :Confirmed fasting status of the patient

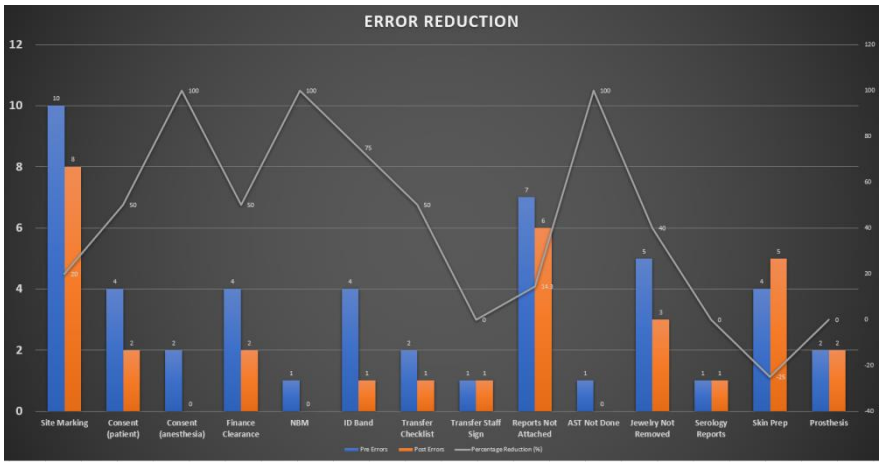
**STRATEGY IMPLEMENTATION**

- We designed these Checklists and we circulate them in every ward, i.e., General Ward, Semi-Private, Super Speciality and Private Ward.
- Staff Counselling: we regularly counsel the staff about these checklists' importance and advantages

**MONITORING AND EVALUATION PHASE**

- Regularly track the errors in patient preparation and compare them with Key Performance Indicators.
- Collect the Feedback of staff and Patient

- Track the errors of patients 'Pre-Implementation and Post Implementation




**ERROR MITIGATION**

## INTERPRETATION

Shows that error reduction of various categories like site mark,ID band , consent , finance clearance due, transfer list ,fasting , transfer staff sign, Antibiotic test , Jewellery not removed, skin preparation and Prosthesis.

**Average decrease in error is 35.4%**

- **Regularly make patients aware that the waiting time** can be decreased by pre-booking because they can see the slots when exactly the Doctor is seeing OPD patients.

- Prepare the Posters for awareness on "**World Environmental Day"** in skill Lab.

- Explain to the Patients the significance of this poster that we need to plant more trees, accept paperless reports, use less plastic, and adopt cloth and jute bags.
- **Learn** more about the **basic workings of the TPA department:** Learn about Claims and rejections.

| | |
|---|---|
| | • Take weekly audit of the Infection control department For **Single Used Device (SUD)Compliance** in MICU and both the ICU.<br>• Understand the general **workflow of CSSD.**<br>• Take a weekly audit of the **Linen Checklist** of MICU, private ward, Special Ward, OT 2nd Floor.<br>• Also did an audit of 2 **Intensive Control Units (ICU)** and identified the issues.<br>• Taken daily audit of **PICU** (pediatric intensive care unit) **NICU** (Neonatal intensive care unit) |
| **Linking theory (Classroom learning) with practice at your organization** | • **OPD efficiency**: Implementing root cause analysis and PDCA cycles.<br>• **Patient psychology**: Understanding fears and anxieties during testing.<br>• **Preventive education**: Educating patients for improved health outcomes.<br>• **Interdepartmental collaboration**: Enhancing teamwork across hospital sectors<br>• **Integration** of Marketing in Promoting Digital Literacy by limited spending on the marketing part.<br>• **Digital Health** plays a vital role in Data collection and easy access to anytime and anywhere.<br>• **Root Cause Analysis** helps to find connection between actual cause. DMAIC will be followed.<br>• **Apply healthcare administration** knowledge to insurance processing and patient coordination in the TPA Department.<br>• **Conduct practical audits** using infection prevention principles, theoretical sterilization methods, and hygiene standards to improve CSSD, linen management, and ICU operations.<br>• **NABH and JCI certified guidelines** and how much they are meeting at practical level. |
| **Gaps identified on the working area.** | **<u>NH CARE:</u>**<br>• Patients **face difficulty in downloading app** by themselves and face problems with **internet connection.**<br>• Awareness about the "**Pre-Booking appointment**" feature needs improvement, especially to revisiting patients.<br>• Appointment slots are frequently unavailable. |

- Some doctors do not offer a "Pay Later" option**.**
- Issues persist with **sharing personal information.**
- **Patients rely** heavily on PCC staff for registration.
- Patients **still prefer hard copies** of reports and bills.
- **Lack of understanding** about the advantages of digitalization
- There is a shortage of patient care coordinator staff.
- The NH Care app requires better promotion.

- **Doctors are not available** at appointed time sometimes due to shifts in Operation Theatre
- **Toilets** must be more hygienic.
- Some of the most common cases are **not seen** at Narayana like **Burns, IPD of Ophthalmology, Dental, Psychiatry (IPD) and Geriatric Medication etc.**
- **Staff shortage** in patient care service staff
- Effective communication to update patients if doctor is busy.
- Introduce new services such as burns, ophthalmology IPD, dental, psychiatry IPD, and geriatric medication. Hygiene should be maintained by effective sanitation protocols.
- The Cheeranjivi area lacks sufficient housekeeping services.
- Patient waiting times increase when staff shortages necessitate transfers.
- Four staff members face a printer shortage.
- Insufficient space is available for staff in the area.

- Laboratory faces **the issues of Repetition of tests** of patients due to issues in machines, and the load of patients.
- Also faces **delays in confirmation** with doctors for Abnormal tests due to the busy schedule of doctors.
- Lack of coordination among the doctors sometimes mostly among OT staff and Ward staff along with doctors.
- Rescheduling of surgeries on the wish of the surgeon
- Patients not prepared by the resident doctor and nursing staff on time.
- Include the to be admitted patients and non-finance clearance due patients in the surgery list led to most of the delays.
- Issue of surgery-specific codes is not available admission's system.
- Sometimes exceed the time of surgery due to busy Laparoscopic System in other OT.
- Patient does not follow the guidelines for Nil by Mouth (Fasting for 6 hours before surgery) this shows lack of coordination of ward staff and doctor.
- Transfer the patient's way before the time hence they need to wait for more than 30 minutes.

## Post recovery issues:

- Post Surgery Documents filed late by respective Surgeons.
- Average time: 30 min
- Patients from Semi-Private and General wards take time about 40-50 minutes more than other wards
- Entry is not maintained properly of our time in Recovery Room

| | |
|---|---|
| | • **TPA**: sometimes admitting patients without approval can lead to finance clearance delays.<br><br>**INFECTION CONTROL**<br><br>• **Single-used Device (SUD) COMPLIANCE**: Sometimes Doctors or staff throw the SUD without entry, and this is counted as missing in CSSD.<br><br>• **Linen Department**: Facing various issues like staff shortages, missing clothes green Lenin etc.<br><br>• **Paediatric Intensive Care Unit and General Ward**: Observe that they are not using Oral hygiene i.e. Mouth wash for the patients. |
| **Suggestions for improvement** | **GENERAL**<br><br>• Introduce interactive sessions to promote preventive healthcare practices.<br>• Implement measures to reduce redundant data entry on government portals.<br>• Include housekeeping services as part of patient care.<br><br>• Optimize Cheeranjivi desk layout with adequate space and tools for efficient patient formalities<br>• Additional Doctors should be there to attend patient if concern Doctor is busy.<br>• Increase staffing at Preventive Health Desk for improved patient management.<br><br>• Must be staff doctors for analyses of lab reports.<br><br>**OPERATION THEATRE**<br><br>• Need for the upper hand to control the doctor's behaviors and issues.<br>• A proper checklist should be considered before scheduling the surgery to prevent patient delays.<br>• Regular awareness must be generated by digital mode or IEC materials to opt for being paperless to patients.<br>• Exclude **To Be Admitted** and **pending Finance clearance** patients from the list until their admission is confirmed.<br>• Ensure dietary instructions are communicated clearly and followed before surgery.<br>• Implement the **'Golden Patient ' technique**: identify and medically optimize the first patient on the next day's OT list and ensure they have been seen by anesthesia to save time.<br>• Ensure that **Ortho surgeries don't face delay** by advance preparation of patients.<br>• **Collaboration of IT, Admissions and OT staff** to decide correct codes for surgeries.<br>• Implement reminder systems to ensure patients arrive on time. |

| | |
|---|---|
| | • **Train ward staff regularly** on completing transfer checklists and essential documents for efficient patient handovers**.**<br><br>**SERVICE EXCELLENCE**<br>• There should be Wi-Fi availability for patients.<br><br>• Can also Outsource the department to install and give instructions about this app and teach patients about reports, bills and prescriptions along with booking online which is the most important feature because it will target out REVIST patients which is more compared to NEW patients.<br><br>• Include **payment options for scheme patient**s in the NH app.<br>• Provide **options for all tests for first-visit patients** during **preventive health checkup bookings.**<br>• **Encourage the promotion of the app** across various departments.<br>• **Integrate with Doctors** to resolve collapsed slot issues.<br><br>**INFECTION CONTROL DEPARTMENT**<br><br>• **TPA Department**: To avoid delays in financing clearance, make electronic pre-admission clearances mandatory.<br>• **SUD Compliance**: To ensure precise compliance, use stringent SUD logging procedures and an electronic tracking system.<br>• **Linen Department**: Reduce worker shortages by redistributing and providing training and maximizing linen inventory through computerized tracking.<br>• Enforce a uniform mouthwash and oral hygiene procedure in the **PICU and General Ward,** along with frequent staff training and supervision |

## Signature of the Student

**Disha Kumari**

**Approved by the IIHMR University's Mentor**

**Dr. JP Singh**